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KIDS COUNT in Montana

Measuring Montana's Social and Economic Performance

Inside:

KIDS COUNT in Montana

New Data About Montana's Kids and Families Help Measure State's Economic and Social Performance

by Stephen F. Seninger and Barbara Wainwright

In Montana, kids are an integral part of our lives and our communities. As parents, grandparents, caregivers, teachers, doctors, and in many other roles, we care about children and spend a lot of time and energy on their upbringing. Montana kids are also a major demographic force representing 28 percent of our state's population of slightly fewer than one million people. Sponsored by the Annie E. Casey Foundation, KIDS COUNT is a national and state-by-state effort to track the status of children in the United States. It is designed to provide policymakers and citizens with the benchmarks needed to enrich community, state, and national discussions of child well-being. At the national level, one of the principal activities of KIDS COUNT is the publication of the annual *KIDS COUNT Data Book: State Profiles of Child Well-Being*, which reports at least 10 leading indicators of child welfare in every state.

The Casey Foundation also funds a network of state-level KIDS COUNT projects and recently selected the Bureau of Business and Economic Research to operate the state program for Montana. Traditionally, the Bureau has monitored and analyzed Montana's economy and its major industries. While the KIDS COUNT project is a somewhat new direction for the Bureau, these indicators of the well-being of Montana families and kids provide important bottom-line measures of the state's economic and social performance.

In Montana, the KIDS COUNT project is a statewide collaborative effort bringing together a wide range of organizations, including businesses, non-profits and government

Poverty rates for Montana kids 18 years of age and under are some of the highest in the nation. About 50,000 Montana kids live in families and households where annual income was below the U.S. poverty threshold.

agencies interested in or involved with children and families. One of the major goals of the statewide KIDS COUNT project is to identify the status and well-being of Montana's children by collecting the best available data on children and publishing a *Montana Data Book*. Through publication of this data, the project hopes to maintain and refine baseline measures for kids and families in order to track progress and problems in kids' health, education, and overall well-being.

Montana's Kids Compared to Other States' Kids

The well-being of Montana kids is dependent on the well-being of our communities — which in turn depends on how our state's economy performs. Indeed, family income, business profits, and government revenues, while not the sole source of joy and comfort, are major elements of social and economic opportunity that directly affect access to health care, education, and other areas of kids' well-being.

One way to measure the well-being of Montana kids, then, is to look at how our state fares compared to other states. Data and indicators from the national KIDS COUNT program show a mixed record. While Montana has improved some demographic indicators like child mortality and births to teen moms, the state continues to rank poorly on many socio-economic indicators.

Since 1990, Montana's infant mortality rate has fallen from 9 to 7.4 infant deaths per 1,000 live births, an improvement that puts our state 28th among the 50 states. Our child death rate also has dropped over the same period, as did the birth rate to teen moms 15 to 17 years of age. Montana kids and families continue to face economic hardship, though. There has been virtually no improvement over the past decade:

- Twenty-two percent of Montana kids lived in poverty in 1990. The number stood at 21 percent in 1998 and placed Montana 35th among all states.
- In 1990, 29 percent of Montana parents were without full-time, year-round work. This number increased to 31 percent in 1998 and placed the state 29th in the rankings.

Montana's rankings compared to other states and to the national average do give us an idea of where we stand in relation to other parts of the country. We are above the national average for percentage of children in working-poor families who lack health insurance; 24 percent have no insurance, the U.S. average is 23 percent. We also have a higher than national proportion of children in working-poor families, at 31 percent for the state compared to 23 percent nationwide. The 75,000 Montana children in this category are in families where at least one parent, and sometimes both, worked full-time all year and the parents' jobs and other sources of income totaled $33,060 or less.

Risk Factors for Montana's Kids

In short, while Montana has made progress in measures of birth and mortality, the state has either regressed or remained stagnant in areas of social and economic opportunity for kids and families. The interaction between several indicators, particularly socio-economic, can lead to higher risks of negative outcomes for children and families.

Family income below the poverty line, children living with parents who are under-employed or who are receiving welfare benefits, and children without health insurance are some of the risk factors which, cumulatively, have a negative effect on children's academic scores and are associated with developmental delays and behavioral problems. Risk factors and the

disadvantages they create for kids do not go away. Census data shows that as children grow older, the disadvantages persist and result in increasing rates of high school dropouts, unemployment, and births to teenage mothers.

The pattern of risk factors points to family-focused programs as a key approach to addressing the problems of high-risk children in Montana. To change the prospects for high-risk children ultimately means changing the circumstances of their families, especially their access to community programs. We do have evidence that despite compounding challenges, many high-risk kids overcome the odds. Family programs supported by business, government, and communities will help make the odds more favorable to high-risk kids.

Social and Economic Opportunity

The health of infants and kids is directly related to economic conditions for families and children. Family economic conditions, as measured by indicators such as the poverty rate and the number of working-poor families, are directly related to the performance of the Montana economy over the past two decades. The state's economic recession in the 1980s and the lackluster performance of the Montana economy during the 1990s translate into lower wages and family incomes for many working parents in Montana.

Our persistently low standings in national rankings of job earnings and household income have become standard descriptors of the economy. Montana's per-capita personal income, one of the lowest in the nation, was $21,997 in 1999 (Table 1). This represents 77 percent of the national average of $28,546. The gap between Montana and the nation is even larger for median household income, a measure that pinpoints the dollar amount that divides income distribution into two equal groups — half with income above the median, half with income below it. Montana's median household income in 1997 was $29,672 compared to the national median of $37,005.

Table 1
Montana Kids' Social and Economic Opportunity Data

SOCIAL AND ECONOMIC OPPORTUNITY	Montana	U.S.
People under age 18 in poverty, 1997	49,055	14,113,067
Estimated median household income, 1997	$29,672	$37,005
Monthly average number of families, with dependent children, who participated in FAIM (AFDC) in fiscal year 2000	4,640	—
Monthly average number of children who participated in FAIM (AFDC) in fiscal year 2000	8,758	—
Monthly average number of recipients of all ages who received Food Stamps in fiscal year 2000	59,660	—
Percent of students in pre-kindergarten to 12th grade eligible for free/reduced lunch in academic year 2000	32%	—
Average number of women, infants, and children who participated in the WIC Program during the fiscal year 2000	22,353	—
Per-capita personal income, 1999	$21,997	$28,546
Total number of children who participated in the Day Care Program (child care) for fiscal year 2000	12,011	—
Overall unemployment rate (1999 annual averages)	5.2%	4.2%
Total Civilian Labor Force (1999 annual averages)	474,000	139,368,000
Civilian labor force 16 to 19 years of age (1999 annual averages)	34,000	8,333,000
Civilian non-institutional population 16 to 19 years of age, (1999 annual averages)	59,000	16,040,000
Teen unemployment rate, 16 to 19 years of age (1999 annual averages)	12.4%	13.9%

Sources: Derived from Bureau of Business and Economic Research data analysis.

Poverty rates for Montana kids 18 years of age and under are some of the highest in the nation. About 50,000 Montana kids live in families and households where annual income was below the U.S. poverty threshold, as defined by the Office of Management and Budget. In 1998, the poverty threshold for a family of two adults and two children was $16,530.

Another way of measuring the impact of Montana's low-income economy is by looking at the number of children in working-poor families. In 1998, 32 percent of kids age 18 and under were in working-poor families with family incomes of $33,060 or less. This amount represents a poverty threshold used for eligibility in many government means-tested assistance programs such as the Earned Income Tax Credit, child health insurance programs, and reduced-price school lunches.

Free or reduced-price school lunches enrolled 32 percent of Montana students in pre-kindergarten through the 12th grade. The average number of participants in the state's Assistance for Women, Infants and Children (WIC) Program during 2000 was 22,353.

Large numbers of participants also characterize other social service programs providing income support to working-poor and poor families. More than 4,600 families in an average month participate in Families Achieving Independence in Montana (FAIM), the program providing assistance to Montana families with dependent children. The number of children participating in FAIM in an average month is 8,758. Food stamps are an important in-kind support program in Montana, with average monthly enrollments in 2000 of 59,660 persons of all ages.

Montana's kids are active in the labor market, earning money and gaining work experience. In 1999, there were an estimated 34,000 teenagers (age 16 to 19) in the state's labor force. The unemployment rate of 12.4 percent for the youth labor force was about 2.5 times higher than the state's overall unemployment rate and 1.5 percentage points below the national youth unemployment rate.

Table 2
Montana Census Data, 2000

DEMOGRAPHICS	Montana	U.S.
Total resident population	902,195	281,421,906
Population 0-4 years old	54,869	19,175,798
Population 5-14 years old	131,261	41,077,577
Population 15-19 years old	71,310	20,219,890
Total population under 20 years of age	257,440	80,473,265
Median age of population	37.5 years	35.3 years
RACE AND ETHNICITY OF CHILDREN UNDER 18 YEARS OF AGE		
Total population under 18 years of age	230,062	72,293,812
American Indian and Alaska Native	22,082	685,911
Black or African American	922	10,610,264
White	196,699	44,027,087
Hispanic Origin	7,350	12,342,259
Other	3,245	4,628,291
HOUSEHOLD DATA		
Total number of households	358,667	105,480,101
Family households	237,407	71,787,347
Married-couple families with own children under 18 years	82,384	24,835,505
Female-headed family with own children under 18 years	21,201	7,561,874

Source: U.S. Census Bureau, U.S. Department of Commerce, 2000.

Demographics

Children, adolescents, and older teenagers are a major part of Montana's communities; more than one in four Montanans are under 20 years of age.

School-age children between the ages of 5 and 14 account for more than half of the youth population in the state and almost 15 percent of the state's total population, a pattern that mirrors national trends in the age composition of population (Table 2).

Although we have seen a major emphasis in recent years on the older and aging segment of the U.S. population, kids represent a big group within our nation's population. At the national level, Census 2000 data show an increase in the number of children between 1990 and 2000 (8.7 million), an increase second only to the baby-boom decade of the 1950s. Minority children, especially children of Hispanic origin, represented much of this national increase.

According to 2000 Census data, white children are the largest racial group in Montana, representing 85 percent of all children in the state. At the national level, white kids represent 61 percent of the total. American Indian kids are the second largest group in Montana and the largest non-white group, accounting for almost 10 percent of the 230,000 Montanans 18 years and younger. American Indian kids represent 1 percent of the U.S. youth age group.

The racial and ethnic composition of Montana's youth significantly differs from that of the United States in that the state's Hispanic component is much smaller. At the national level, Hispanic children are the largest racial or ethnic group (17 percent) after white kids. In Montana, Hispanic kids represent less than 4 percent of the population 18 years old or younger. Montana has very few African American, Native Hawaiians/Pacific Islanders and Asian kids. Kids in each one of these groups comprise less than 1 percent of Montana's kid population.

Montana households are overwhelmingly represented by family households where all people in the household are related by birth, marriage, or adoption. About two-thirds of all households in the state fall into this category.

Many families have younger children. Slightly more than one-third (34 percent) of family households are married-couple families with children under 18 years of age. Female-headed families with children under 18 represent 9 percent of all family households, a pattern similar to the national figure.

Health

In our society, access to health care largely depends on private health insurance coverage. Children who do not have health insurance either go without health care or, in some cases, receive their care through public-funded health programs. Lack of health insurance is a high-risk indicator for physical and mental development early in life, as well as educational and learning disadvantages during childhood.

Some indicators of physical health suggest that Montana's children are doing well. However, other indicators show that access to health care is a serious problem for children, especially for kids in low-income families where both parents work. Health-care access problems and low coverage rates of

private health insurance for Montana kids reflect the economic hardships among working-poor families in the state.

In view of Montana's low economic standing, it is not surprising that Medicaid is an important source of health-care support for Montana kids. On average, almost 26,000 kids received Medicaid health-care services and 2,800 more kids were eligible for these services but not receiving them.

Official measures of health insurance coverage include Montana kids who were covered by both private and public health insurance, including Medicaid. An estimated 18 percent of Montana kids did not have health insurance coverage, a rate higher than the national average of 15 percent (Figure 1).

This 18 percent non-coverage rate translates into approximately 42,000 kids and teenagers under age 18 who do not have access to private or public health-care coverage. The Montana Children's Health Insurance Program (CHIP) provides health insurance for Montana kids from low-income families who are not eligible for Medicaid and have not been covered by health insurance for three months. Estimated average enrollment rates for CHIP services show 9,700 children participating in the program. Despite these programs, there is still a sizable number of children in the state who do not have private insurance or public program access to health care.

Montana immunization rates for kids 2 years old and younger are 89 percent and include immunizations against measles, mumps, rubella, polio, and other illnesses. Montana's immunization rate is 9 percentage points higher than the national rate of 80 percent.

Access to dental care is another important measure of the health of Montana kids. About one-fifth of third graders have received some kind of dental care based on estimates of the number of children who have received protective sealants on at least one permanent molar tooth.

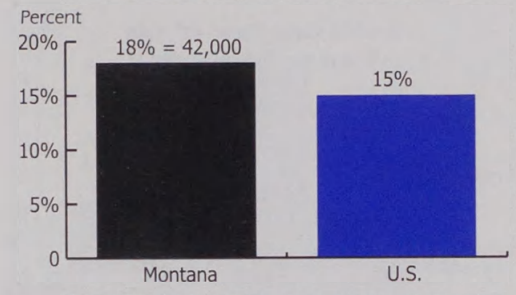
Vital Statistics

Montana's infant and early childhood health indicators have shown strong improvements over the past decade. Infant mortality rates, child death rates, and health screening rates for newborns have all changed in positive directions in Montana. The state has lost ground with a higher percent of low-birthweight babies in 1999 compared to 1990.

The number of low-birthweight babies, defined as those who weigh less than 5.5 pounds at birth, is an infant health indicator. About 7 percent of all live births in Montana during 1999 were low-birthweight babies, an increase from 6.2 percent in 1990 (Figure 2). Higher proportions of low-birthweight babies are of concern because of their greater probabilities of developmental problems, serious illness, and higher rates of infant mortality. One positive note is the high percentage, 86 percent, of low-birthweight infants delivered at facilities equipped for high-risk deliveries.

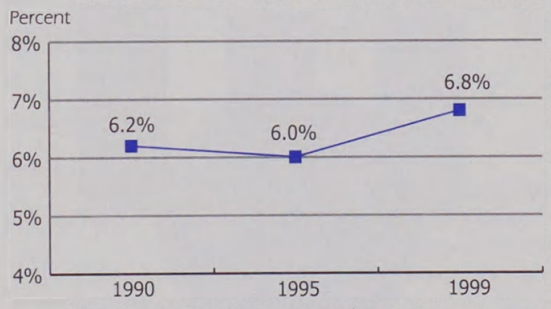
Health monitoring of newborns provides important

Figure 1
Kids Under Age 18 Without Private or Public Health Insurance, 2000



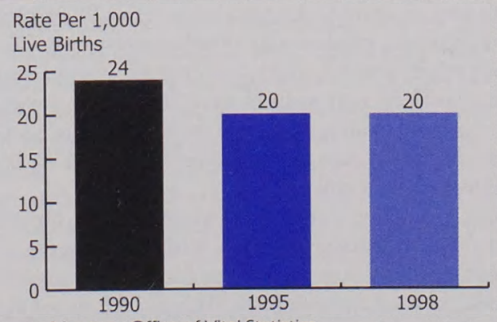
Sources: U.S. Department of Health and Human Services and Montana Department of Public Health and Human Services.

Figure 2
Montana Low-Birthweight Births, as a Percentage of Total Live Births, 1990-1999



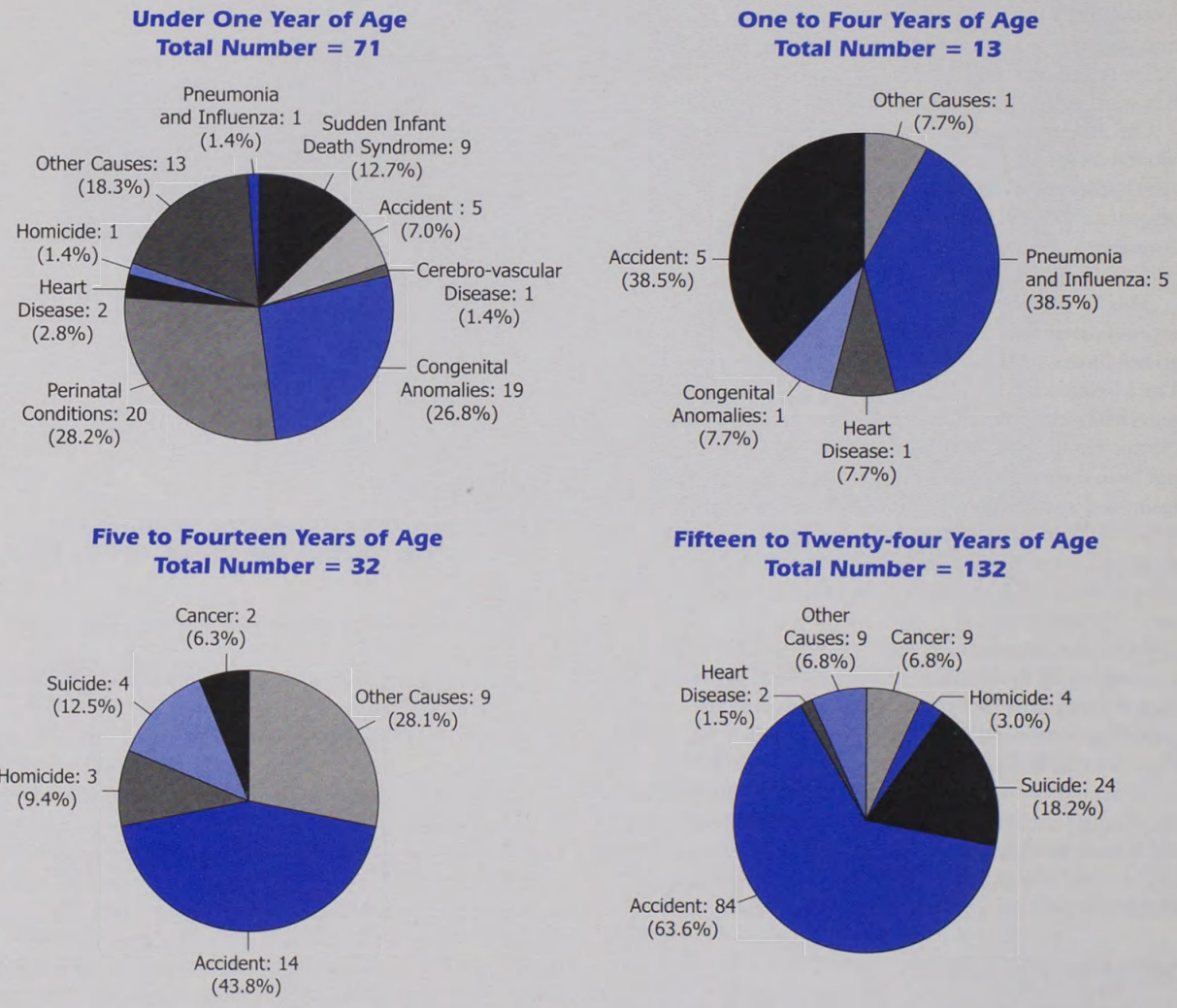
Source: Montana Office of Vital Statistics.

Figure 3
Births to Teens, Per 1,000 Live Births, Montana, 1990, 1995 and 1998



Source: Montana Office of Vital Statistics.

Figure 4
Leading Causes of Death by Age, Montana Youth, 1999



Source: Montana Office of Vital Statistics.

health care to infants. Montana has a high—99 percent—rate of screening newborns for health problems like PKU, hypothyroidism, vision, and blood disorders. Screening for hearing problems represents an exception in this area. Less than one-third of all newborns in the state are tested for hearing impairments, a health problem that leads to learning disabilities in early childhood.

Early prenatal care, especially within the first trimester of pregnancy, can promote healthier births by detecting and managing pre-existing medical conditions. Mothers who received prenatal care are more likely to take their infants for regular health checkups and for immunizations and other protective screening tests. In 1998, 82 percent of Montana infants were born to mothers who received prenatal care beginning in the first trimester of pregnancy.

Teen childbearing is highly associated with mothers who are more likely to have completed fewer years of schooling and lack a fully-employed, income-earning partner. These risk factors of teen motherhood frequently result in diminished economic and social opportunities for children (Figure 3). The number of live births to teen mothers decreased from 24 births per 1,000 live births in 1990 to 20 per 1,000 in 1999. Montana's teen mom birth rate is significantly below the national rate of 30 births per 1,000. Almost 12 percent of all

live births were to teen mothers throughout the state, a proportion equal to the national average.

Mortality

Montana's declining infant mortality rate during the 1990s mirrors national trends. The state's current rate of 7.4 infant deaths per 1,000 live births is down from 9 per 1,000 in 1990. Montana's rate is slightly higher than the national rate of 7.2 infant deaths per 1,000 live births. Over half of the infant deaths in recent years were babies 28 days or younger. Congenital anomalies, Sudden Infant Death Syndrome, and perinatal conditions are the three leading causes of infant death in the state (Figure 4). Accidents are the single most frequent cause of death for Montana youth over the age of 1. Other violent causes, notably suicides and, to a less extent, homicides become major specific causes of death for kids as they become older.

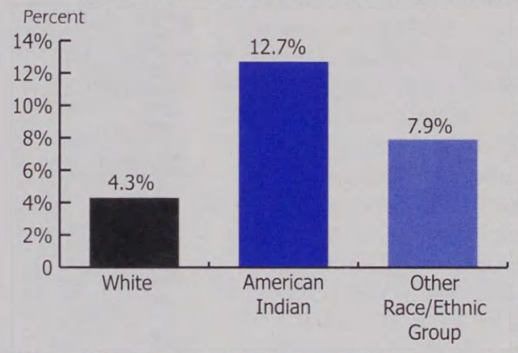
Alcohol and motor vehicle crashes are major causes of injury and death to Montana kids. Of the 6,803 vehicle crashes involving teenagers in 2000, almost one-fifth, or 375, involved teenage drivers who had been drinking.

There were 43 fatal crashes with young drivers; in 11 of those accidents, the teenage driver had been drinking.

Montana's rate of 13.8 suicides per 100,000 kids aged 15 to 19 was higher than the U.S. rate of 9 per 100,000. According to recent data, 62 percent of these suicides were committed using a firearm.

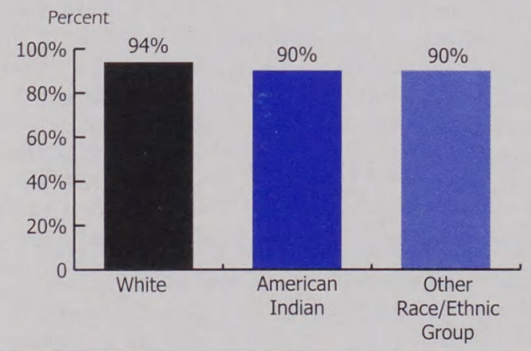
Violent crimes such as homicides, rapes, robberies, and aggravated assaults are another threat to the safety of Montana kids. Montana's violent crime arrest rate was 174 kids per 100,000 youth aged 10 to 17, compared to much higher national rate of 394 per 100,000 youth in 1998, according to crime statistics compiled by the FBI. Juvenile property crime arrest rates in that same year were much higher in Montana—2,880 per 100,000 compared to the national juvenile property crime arrest rate of 2,130 youth per 100,000.

Figure 5
Average Dropout Rate for Montana High School Students, by Race, 1995-99



Source: Montana Office of Public Instruction.

Figure 6
Average Graduation Rate of 12th Grade Montana Students, by Race, 1998-99



Source: Montana Office of Public Instruction.

Education and Schooling

The education picture for Montana kids contains a number of positive indicators. The statewide dropout rate is below the national rate. High school graduation rates are high, and basic test scores on reading and writing show Montana students performing stronger than national averages.

Public schools enroll the largest number of students in Montana. Total school enrollment was 166,502 students in the 2000-2001 academic year. Ninety-three percent of these students were enrolled in public schools.

Private school enrollments were 5 percent of the total and home schooling accounted for 2 percent. Public high schools accounted for the bulk of the state's graduates, with almost 11,000 graduates in the class of 2000.

Montana's high school dropout rate declined during the 1990s, decreasing from 5.7 percent in 1995 to 4.2 percent in 1999. Statewide dropout rates increase as students enter their high school years. About 3 percent of ninth graders drop out of school, a rate that increases to more than 4 percent in the sophomore year and then stabilizes around 3.5 percent to 4 percent in the last two years of high school. Dropout rates are higher for American Indian and other minority students. Four-year averages based on data between 1995 and 1999 show a 4.3 percent dropout rate for white students, 12.7 percent for American Indian students, and a 7.9 percent dropout rate for other minority students (Figure 5).

High school graduation rates are an important indicator not only of success in a student's high school education, but also a predictor of future success in the workplace and of future income level. Dropouts from high school earn as much as 40 percent less than their peers who graduate. Female dropouts frequently are pregnant and face child-rearing

responsibilities without job experience or education. Graduation rates can be calculated by comparing 12th grade enrollments to total graduates. In the 1998-99 school year, the overall percent graduating from public-funded high schools was 94 percent. The rate was a slightly lower 90 percent for American Indian students (Figure 6).

Preliminary evidence suggests that Montana students perform well on basic reading and writing exams as measured by the National Assessment of Educational Progress conducted by the U.S. Department of Education. Test score data for a limited sample of Montana students show that 73 percent of fourth grade students scored above the basic reading level compared to a national average of 61 percent in 1998. Montana students in the eighth grade showed a pass rate of 83 percent for basic reading exams, compared to a national average of 72 percent.

Writing exams measure how students perform three types of writing: narrative, informative, and persuasive. In tests measuring writing skills, 86 percent of Montana eighth-graders passed, a rate higher than the national average pass rate of 83 percent.

Urban and Rural Kids in Montana

Montana's small population and large geographic size officially make it one of the most rural states in the country. However, population and economic activity are concentrated in a small number of "urban" counties that are home to the state's larger cities. The seven urban counties that include Billings, Bozeman, Butte, Great Falls, Helena, Kalispell, and Missoula contain 60 percent of the state's total population and more than three-fourths of total employment.

Montana kids are by and large urban kids. Montana's cities and urban counties—including Cascade, Flathead, Gallatin, Lewis and Clark, Missoula, Silver Bow, and Yellowstone—contain the largest number and proportion of kids. Fifty-nine percent of Montana youth under 20 years of age live in the urban counties. The benefits, problems, and challenges confronting young people in cities throughout the United States also confront Montana kids. Juvenile crime rates in Montana are not drastically lower than the nation. The problems faced by youth living in the nation's urban areas—poverty, working-poor families, and inadequate health care—also characterize conditions for Montana's urban youth.

There are dramatic urban and rural differences in race and ethnicity of Montana kids. Hispanic youth 18 years of age and younger more often live in urban counties, where they represent 3.6 percent of the youth population, compared to 2.6 percent in rural counties. Most Native American kids live in rural counties, where they represent 18 percent of the youth population, compared to less than 4 percent of youth in urban areas. White kids are the largest group within urban youth populations, representing a little over 90 percent of the total number of youth 18 years of age and younger, compared to 78 percent of all youth in rural counties.

Urban and rural differences also show up for Montana households and families. Female householders with no husband present and children under 18 years of age comprise 9.5 percent of all family households in urban counties and 8 percent of family households in rural Montana.

Youth as a percentage of total population is much larger within Indian reservations than in urban and rural counties in general. About 38 percent of the total population of people living on reservations is represented by kids under 10 years of age, according to Census 2000 data. The youth proportion in rural counties statewide is 29 percent, about the same as the 28 percent proportion in urban counties.

Conclusion

National and state data for the KIDS COUNT program show a mixed record on how Montana kids are doing. Montana has made progress on some measures such as child mortality, births to teen moms, and school dropout rates. Montana has not moved forward on several social and economic measures of child well-being. The percent of kids in poverty, the number of kids either reliant on public health programs or without access to any kind of health care, and the numbers of working-poor families in the state represent economic hardship facing families and children in Montana. This argues for a closer look at the employment, health care, and family support services available in communities throughout the state, a focus the KIDS COUNT in Montana program will pursue as it continues to develop. ❑

KIDS COUNT in Montana data and data sources are available online at **www.bber.umt.edu/kidscountmt**

Stephen F. Seninger is the Bureau's director of economic analysis and Barbara Wainwright is the Bureau's marketing director.

Managing the Forests in the Aftermath of the Fires

by Sherry Devlin

During the 2000 wildfire season, the Bitterroot National Forest burned 56 times the acreage it normally burns in 10 years. "That's the scale," says forest supervisor Rodd Richardson. "Big." PHOTO BY KURT WILSON.

Sometimes, John Baldridge says, it doesn't matter what question you ask. People are going to tell you the story they want — or need — to tell.

Such was the case in January 2001, when The University of Montana's Bureau of Business and Economic Research asked 1,214 Ravalli County residents how the Bitterroot National Forest should be managed in the aftermath of the fires of 2000.

What should the forest do in the burned areas? Plant trees? Salvage timber? Stabilize soils? Maintain trails? Reduce weeds? Maintain roads?

What about the areas where people build homes on the national forest boundary? Should the Forest Service help private landowners reduce fire hazards on their land? Should they thin trees? Burn low-lying vegetation?

No matter how much Baldridge, the BBER survey designer, or the Bitterroot National Forest, which commissioned the survey, asked about future forest management, the people told stories about how they were affected by the fires of 2000.

"The smoke made me sick. My eyes hurt. My head hurt."

"My house burned down."

"My asthma flared."

"I lost half my outfitting business for the summer."

"I was evacuated from my home for a month, but at least it was there when I got back."

"Everyone was so kind."

So Baldridge wrote a 22-question telephone survey that asked both about post-fire forest management options and gave Ravalli County residents a chance to talk about how their lives changed when wildfires burned 300,000 acres of the Bitterroot National Forest.

How much were you personally affected by the smoke from the fires of 2000? Did you suffer any significant health effects like coughing, wheezing or asthma because of the fires? Did you work in a job that helped to fight the fires of 2000? Do you own property damaged by the fires? Did you take any action to protect your property during the fires?

The result: a solid 87 percent of the people contacted by BBER researchers agreed to the interview. "Which tells me that folks are really interested locally in what we do on the Bitterroot National Forest," said forest supervisor Rodd Richardson.

Figure 1
How Emotionally Upsetting were the Fires?
Respondents rate how upsetting the fires were on a scale from one to five, where one is not at all and five is very upsetting

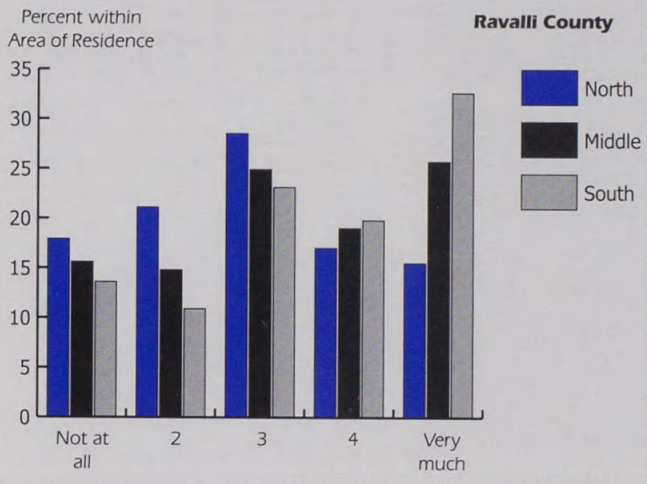
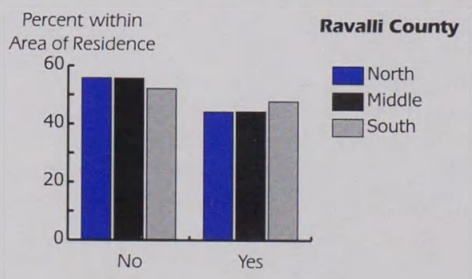


Figure 2
Was Your Personal Health Affected by Fires?



Baldridge said he asked Richardson for permission to add several questions about how people were personally affected by the wildfires after so many told their stories during the field tests.

"When we didn't ask, people talked about how they were affected anyway," he said. "When we did the field testing prior to the survey, it was obvious that people were less interested in management actions than in telling us how they were affected by the fires. We couldn't get at one without looking at the other. People were too frustrated if we just asked about management. They wanted to talk about effects, and we were the one shot that people had."

Thus this question from the survey: "Some people found the fires of 2000 to be emotionally upsetting, while others not so much. Can you recall how emotionally upsetting the fires of 2000 were for you? Please rate how upsetting on a scale from one to five, where one is not at all and five is very upsetting (Figure 1)."

Thirty-three percent of the southern Ravalli County residents said the fires were "very much" upsetting, as did 25.7 percent of those who lived in mid-county. Overall, 24.3 percent of those surveyed said the fire season was "very" upsetting.

Countywide, 15.8 percent said they were "not at all" affected emotionally by the record-breaking fire season.

Forty-five percent of those surveyed countywide said their health was "very much" affected by smoke from the wildfires; in southern Ravalli County, where the largest and most stubborn fires burned, 58 percent said their health was "very" affected (Figure 2).

Twenty percent lost hours at work because of the fires. Nineteen percent said they worked more hours because of the fires. Forty-two percent said they took action to protect their property during the fires of 2000; 11.5 percent said their businesses made more money than usual because of the fires; 13.5 percent said they worked in a job that helped fight the fires of 2000.

Eight percent said they were evacuated during the fires; 13 percent were told to prepare for evacuation.

"You wonder if mitigating the effects should also be part of the Forest Service's responsibility," said Baldridge. "Maybe that's the role of other agencies, but I think the Forest Service needs to at least ask itself the question, 'Should we play more of a role in mitigating these kind of effects?' Of course, maybe the answer is no."

Of course, the Bitterroot National Forest's purpose in commissioning the survey was to solicit input from Ravalli County residents on potential forest-management actions after the fires. So Baldridge's primary purpose was an assessment of various post-fire management options.

"Very often, it is the case that public input is gathered in public meetings or small groups," he said. "It is much less often the case that survey work is done to examine the issues."

But public meetings too often attract only the "activist public," Baldridge said — "those who feel strongly enough about an issue to not watch 'Friends' that night." High-quality, scientifically based public opinion surveys can help put into perspective the feedback that government agencies typically receive at public meetings.

"This is one more data point in a whole series of informational points we had along the way," said Richardson, the forest supervisor. "We had community forums while the fires were still burning and smoke hung in the air. We had meetings where people just told their stories. We had scoping meetings to gather the issues that community groups wanted considered in our post-fire environmental impact statement."

The big public meetings are needed, Baldridge said, "so the activist public has a chance to look the Forest Service in the eye." The survey research is needed to broaden the representation. "This is everybody," he said.

And in the Bitterroot, "everybody" came uncharacteristically close to agreeing.

Survey Findings

Should the Bitterroot National Forest "do nothing" on the public acreage burned during the 2000 wildfire season? the survey asked. No, no, no, said 92 percent of the Ravalli County residents surveyed by the BBER (Figure 3).

"That's my message," said Richardson, his 200-page public-opinion report opened to a single, lop-sided bar graph – "the do-nothing chart."

"Doing nothing is highly unacceptable to a high, high percentage of people," the forest supervisor said. "The survey respondents really favored some kind of active management: salvaging burned timber, planting trees, stabilizing soils and protecting streams."

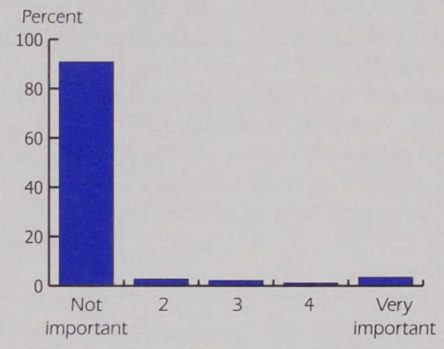
Just 4 percent of the people surveyed said it was "very important" to do nothing in the burned areas — to leave the blackened forests' management to nature.

The same was true in the unburned forest land adjacent to Bitterroot Valley communities, the so-called wildland-urban interface. Should the Forest Service "do nothing" in the wildland-urban interface? the BBER survey asked. Again, 91 percent of the Ravalli County residents surveyed said no. Do something. Thin trees. Educate landowners about fire hazards. Help landowners reduce fire hazards. Use prescribed burning (Figure 4).

"These are robust findings," Baldridge said, "and the high response rate makes them even more robust."

Figure 3
Should Forest Management Do Nothing to Urban Wildland Interface?

Respondents rate the following actions on a scale from one to five, where one is not at all important and five is very important.

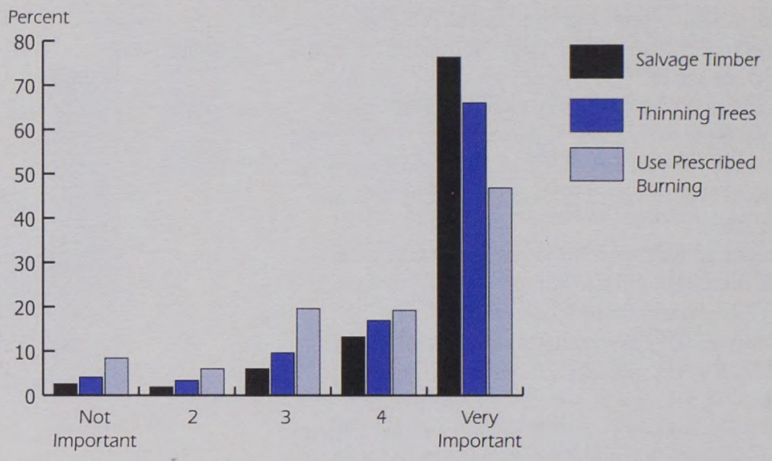


Came the survey results:

- 89.5 percent said it was important or very important to salvage timber burned in the fires of 2000.
- 67 percent said it was important or very important to reduce weeds in the burned forests.

Salvage logging was high on the list of priorities when researchers asked Ravalli County residents how they wanted the Forest Service to manage burned areas of the Bitterroot National Forest. PHOTO BY KURT WILSON.

Figure 4
Should Forest Management Salvage Timber, Thin Trees, and/or Use Prescribed Burning?
Respondents rate the following actions on a scale from one to five, where one is not at all important and five is very important



- 88 percent said it was important or very important to educate landowners about fire hazards, and 60 percent wanted the Forest Service to help landowners with their hazard-reduction projects.
- 66 percent said it was important or very important to use prescribed burning in the wildland-urban interface; 14 percent didn't think prescribed burning was all that crucial.
- 83 percent said it was important or very important to thin trees in the wildland-urban interface.
- 47.5 percent said they support the use of ground-applied herbicides to treat noxious weeds; 44.3 percent said they oppose the use of aerial-applied herbicides.

In considering the results, Richardson not only found solid support for hands-on management of the burned forests, but support for the Bitterroot's ongoing work as well. Sixty percent of those surveyed ranked all of the listed activities as important or very important: timber harvest, environmental education, noxious weed management, wildlife and fish, firefighting, firewood opportunities, recreation opportunities, road and trail access, fuels management, communication, and public involvement.

"There is this mythology that the public are pretty distrustful of the Forest Service and think the agency is not as competent as it should be," Baldridge said. "But in terms of their performance during the fires of 2000, people were pleased with the Forest Service."

"This summer, the Bitterroot National Forest was responsible for informing people about the fire situation every day," the survey said. "Please rate how well the Bitterroot National Forest informed people about the fire situation on a scale from one to five where one is very poorly and five is very well."

Of the 1,200-plus residents who answered, 49.5 percent said the forest performed "very well" —a five on the scale. Another 22 percent ranked the foresters' performance as a 4. Just 5.4 percent said the Forest Service acted poorly during the fire season.

How could the Bitterroot forest improve its management? Increase public access to forest lands, its neighbors said. Rely more on local labor and knowledge, particularly in response to fires. Work more on relationships with the community. Improve forest and fire management practices.

"The single biggest result, though, is that people in Ravalli County want something done in their national forest," said Baldridge. "And they are willing to consider lots of alternatives. They just don't want nothing done."

Locals Support Active Management

For Richardson, the survey results reinforced comments he heard during public meetings throughout the Bitterroot Valley last fall. The local message, he said, was clear. People want the Forest Service to actively manage public lands.

And the Bitterroot forest, he said, will actively manage much of its burned acreage.

The forest's final environmental impact statement, in fact, proposed thinning, replanting, watershed restoration, road rehabilitation, and prescribed burning on about one-third of the acreage burned in July and August of 2000.

"Because this is a national forest, though, we've got to hear from everybody," Richardson said. "We have an excellent indication from the people who live here and were most affected by the fires. Now we need to add the national public."

And science, said Baldridge. And economics. "As survey researchers, we don't want people to govern by holding their finger to the wind. We do want them to consider what people think, but it has to be balanced against other social and economic concerns."

"You always want to use information from all your various sources to make decisions," he said. "That's good government."

"To us, the poll was a snapshot in time that really did let us know what people were thinking right then and there," said Spike Thompson, the Bitterroot's deputy forest supervisor. "A huge percentage of the respondents did favor some type of active management.

"But we are also required to take care of the land," he said. "So what we do is we take a look at how we can do active management and take care of the land. That's how we respond to public comments. It's not a vote. When we propose actions, we really have to take a look at all the laws we are administering. We know people are supportive of active management. What we have to do is temper that with the reality that we still want great water quality here in the Bitterroot. And great mountains. And wilderness. And places where there are no roads."❑

Sherry Devlin covers natural resources for the Missoulian newspaper and is a visiting instructor in UM's School of Journalism.

This fall, the Bitterroot National Forest released its final environmental impact statement, recommending the full complement of management in burned areas: commercial logging, prescribed burning, pre-commercial thinning, watershed restoration and road rehabilitation. PHOTO BY KURT WILSON

A Chinese farmer brings her produce to the daily street market in Ningbo, where each family's surplus is sold. Chinese farmers have cautiously considered some genetically modified products. PHOTO BY KURT WILSON.

The Global Food Fight

Genetically Modified Foods at Home and Abroad

by Robert Paarlberg

Editor's note: Dr. Robert Paarlberg was a keynote speaker at The University of Montana's 2000 Mansfield Conference titled "Food Security and Genetic Technology." This article was adapted from his lecture.

Hunger around the world is an urgent problem. It is a moral indictment that 800 million people remain chronically malnourished at the beginning of the 21st century. Among these malnourished are nearly half of all children under age five in South Asia and roughly one-third of all children under five in Sub-Saharan Africa.

One argument about hunger that I would like to challenge is that hunger in poor countries is not a problem of food production; it's a problem of poverty and of inequitable distribution. This has become somewhat of a mantra for groups that oppose introducing new agricultural production technologies into developing countries. I certainly agree with this assertion in the sense that additional food production in Europe or in the United States certainly isn't a solution to hunger problems in Sub-Saharan Africa or in Southern Asia. But within the poor countries themselves, more food production would go a long way toward solving hunger problems.

Most of those in Sub-Saharan Africa and Southern Asia who are hungry today are small farmers or farm laborers. They are poor and poorly fed because they haven't yet found a way to make their agricultural land productive. Most of today's hungry people simply missed out on the agricultural production growth that was made possible by the Green Revolution. The Green Revolution, with its high-yielding seed varieties, irrigation technologies, and fertilizers swept successfully through the irrigated parts of Southern Asia. But the Green Revolution technologies haven't proved especially useful for farmers either on dry lands of South Asia or Sub-Saharan Africa. Farmers in these areas lack irrigation, they have trouble getting access to fertilizers and pesticides, and they aren't growing the wheat or rice crops that were the focus of the Green Revolution. As a consequence, in South Asia

today, yields per acre for cereal crops are only half as high as they are in China. In Africa, yields per acre for cereal crops are only one-fifth as high as they are in China. I think this is a production problem.

China has been remarkably successful, especially over the last two decades, in bringing people out of poverty and out of hunger. Two hundred million people have escaped poverty and hunger in China since 1978 because of rapid productivity growth in Chinese agriculture.

Low productivity growth in South Asia and Sub-Saharan Africa is the principal reason why so many remain hungry. In Africa today, more than 70 percent of all poor and hungry people are small-scale farmers living in the countryside, dependent on agriculture for income and employment. On a per capita basis, these African farmers are actually producing less food today than they were 30 years ago. In Africa, the rate of growth of per-capita food production has been negative for 30 years. I think this is a production problem.

So I reject the notion that we can address hunger without talking about agricultural production. And in solving these production problems, especially in South Asia and Sub-Saharan Africa, I also reject the notion that some technologies will be inherently good and some will be inherently bad. It's not for us to say which technologies small farmers in Africa—the real stakeholders in this crisis—choose to use and don't choose to use. They have a much larger stake in the outcome than we, and I think we should allow them to make most of these choices. This is one reason that I've developed some misgivings over the direction the policy debate has taken with regard to genetically modified crops. This debate is evolving into, at times, an exercise in which critics of genetically modified crop technologies in Europe and other wealthy countries tell farmers in poor countries what crops they should or should not grow.

Genetically Modified Crops

Let me say a bit about genetically modified or genetically engineered crops. Genetic engineering is the introduction of new traits into familiar food crops by physically splicing individual genes from other crops or from other organisms into the DNA of these crops. The technique isn't really that new. It is something that scientists have been able to do in laboratories since 1973. What is relatively new, however, is the commercialization of this technology in agriculture.

Since 1995, farmers in the United States have been able to purchase genetically modified seeds, genetically modified versions of soybeans, of cotton, of corn, of potatoes and other familiar crops. Wheat, one of Montana's major crops, has not yet undergone this kind of commercialization.

So far, these genetically modified crops have been engineered to help farmers solve problems on the farm—problems with pest or weed control. Soybeans are now available that have been genetically engineered to tolerate a broad-spectrum herbicide, which is sold commercially by the Monsanto Co. as Roundup. Farmers growing these genetically modified crops—Roundup Ready Soybeans—have been able to control weeds in their fields with less soil-damaging tillage. Roundup Ready Soybeans permit the use of low-till or no-till farming. And farmers have been able to control weeds with a single spray of roundup herbicide rather than multiple sprays of more toxic and more persistent herbicides.

Farmers like that because it saves them money and makes their on-farm management practices less complicated. It's also good for the environment to have fewer sprayings of less toxic and less persistent herbicides and less disturbance of the soil.

Also, since 1995, farmers have been able to plant corn, cotton, and potato crops that have been engineered to contain a naturally occurring soil bacterium called BT. The BT acts from inside the plant as protection against some kinds of chewing insects that can't digest the proteins it expresses. So we have herbicide-tolerant genetically modified crops and insecticidal-BT genetically modified crops. Those are the two principal varieties that have been available in the United States since 1995.

The reason these varieties weren't released commercially until 1995 was that they were undergoing extensive testing and regulatory screening by three U.S. regulatory agencies: the Animal, Plant and Health Inspection Service (APHIS), the Environmental Protection Agency (EPA), and the Food and Drug Administration (FDA). Not until regulatory screenings for biosafety and food safety had been completed were genetically modified crops available for planting in the United States.

Some people are skeptical of how these U.S. regulatory agencies operate, suspecting they're lax because they are too close to the industries they regulate. Critics say the U.S. government should follow the more precautionary European approach to screening genetically modified crop technologies. But the fact is that in 1995 and 1996, regulators in Europe and the United States gave their approval to the first generation of genetically modified crops—herbicide-tolerant and BT crops. And even today, regulators throughout the world continue to assert that the genetically modified crops they approved in 1995 and 1996 are no more risky to human health or the environment than the non-genetically modified versions of the same crops.

European regulators have taken this first generation of genetically modified crops through different processes, maybe with different philosophies. They came out with the same result. So government regulators both in Europe and in the United States, and also in Japan, have given this first generation of products an official seal of approval. And in the United States at least, farmers responded by planting genetically modified crops widely.

Currently in the United States, about half of the soybean crop consists of genetically modified transgenic varieties. Roughly one-third of the U.S. corn crop is genetically modified and about 40 percent of the U.S. cotton crop is transgenic. These crops have spread widely in the United States; they've also spread widely in two other countries: Canada and Argentina.

Surprisingly, and to the dismay of industry, genetically modified crops have not spread in any significant way beyond these three countries. Regulators in a dozen or more countries have now given these crops approval for commercial use, but farmers in very few countries are growing them. Ninety-nine percent of all genetically modified crops are being planted in just three countries. All the other countries in the world are producing only 1 percent of the world's total.

Why this rejection of the new technology? In Europe and Japan, the rejection has derived mostly from the preferences of consumers. In 1996, public health officials told European consumers that genetically modified crops were as safe as non-genetically modified crops, but consumers had no faith in the officials' assurances. Earlier those same public health officials had told consumers there was no risk to human health from eating beef from animals that had BSE disease (mad cow disease). That public health assurance proved later to be false. So when officials said genetically modified crops were safe, European consumers didn't believe them because the officials had gotten it wrong on mad cow disease.

Also in Europe, there were other reasons to reject genetically modified foods. First, these foods came from the United States. In much of Europe, especially in France, there's a dislike of the vigor and the brashness and the newness of U.S. culture, as well as the blandness and the tastelessness and the unattractive features of U.S. foods. And it's not just genetically modified foods; fast foods are loathed by many Frenchmen. The French are justifiably proud of their cuisine, and they like to keep new U.S. foods out of France. They describe it as the defense of their "culinary sovereignty." So there's some cultural and national self-protection at work here.

Another reason for Europe's rejection was that genetically modified foods were coming from U.S.-based multinational corporations like Monsanto, and Europeans don't like losing out to U.S. companies. Europe already lost the information technology war to Microsoft. They don't want to lose the biotechnology war to Monsanto. So there's kind of a protective resistance to anything coming out of a U.S. corporation.

Also, in Europe green parties and anti-technology environmental non-governmental organizations such as Greenpeace are strong. Organic farmers also joined together to wage political and media campaigns against genetically modified crops. Often these campaigns consisted of little more than name-calling. Opponents of genetically modified crops in Europe referred to genetically modified foods as "Frankenfoods," and to Monsanto as "Monsatan." Still, these campaigns strengthened what was already a strong inclination on the part of European consumers to seek out genetically modified-free food sources.

In Japan as well, consumers and environmental groups have waged campaigns against genetically modified products. And it's not just genetically modified foods. It's interesting that in Japan, health-conscious smokers have decided they don't want cigarettes that are made with genetically modified tobacco. Actually China, very early in the genetically modified crop revolution, had developed some genetically modified disease-resistant tobacco. The Japanese didn't want it in their cigarettes, so the Chinese had to promise not to export it. Japanese drinkers don't want genetically modified cornstarch in their beer either. So major breweries in Japan have promised that they will not include genetically modified ingredients in their brewing formula.

Taboo Technology?

My view toward these consumer reactions against genetically modified (GM) crops in Europe and Japan is—fine. I believe in consumer sovereignty. I think if people are willing to pay for a genetically modified-free alternative, they should have that right. It would be harmless enough if it could only be contained to those rich countries where farmers are already productive and where consumers are already well-fed. But throughout various intended and unintended international transmission belts, this European and Japanese aversion to genetically modified crops is now being spread into the developing world where farmers and consumers can't afford to turn it into a taboo technology.

Protests by mostly European-based, anti-GM activists are now preventing this technology from reaching farmers in developing countries. Let me give you just a few case studies.

Case #1: Kenya

Last year, I was in Kenya, a country that is in serious agricultural trouble. Food production in Kenya on a per-capita basis is 18 percent lower today than it was just 10 years ago. Thirty percent of all Kenyans are malnourished. This is a country with serious food problems. Genetically modified crops can't solve all of those problems, but they might solve one or two, especially the pest control problem that small farmers growing hybrid maize have in Kenya.

Stem bore insects can chew up 15 to 45 percent of the hybrid maize crop every year. It's an important food crop grown by small farmers. If Kenyan farmers had access to the same kind of BT corn that farmers grow in the United States, they might be able to protect their food crop against insect damage without having to use toxic insecticide sprays. But so far in Kenya, the national biosafety committee hasn't allowed any genetically modified crops to be planted by farmers in that country, partly out of fear of being criticized by Greenpeace and partly out of fear of losing access to development assistance from some European governments. In response to green party pressures, some governments have decided not to finance countries that are working with transgenic technologies.

Case #2: Brazil

I was also in Brazil last year. In 1998, the national biosafety committee tried to make the technology for genetically modified soybeans — the same Roundup Ready Soybeans grown in the United States since 1995 — available to Brazilian farmers. This move was blocked by a lawsuit filed by a national consumer federation in Brazil and by

Greenpeace. The lawsuit claimed that genetically modified crops should not be grown in Brazil until a full environmental impact assessment had been done — not by the national biosafety committee which had already done its assessment, but by the agency inside the Ministry of Environment that took a much more skeptical view of this technology. The issue became a constitutional struggle between the biosafety committee and the Ministry of Environment. It's now in the federal court system, working its way up through three layers of courts. For the moment, it's still illegal for Brazilian farmers to plant genetically modified crops.

Case #3: India

The Indian government has responded to protests and will not allow Indian farmers to grow genetically modified crops, even though many of them are eager to try this new technology. Small cotton crops are being destroyed by bull worm infestations. Farmers have tried to control them with highly toxic insecticides, spraying seven, eight, or nine times a growing season. But the insects have developed a resistance to the insecticide. The chemicals are no longer working, and the farmers have no means to protect the cotton crop.

If farmers had access to the same BT cotton that's been used successfully in the United States to control these kinds of pests, they might be able to control the bull worms without having to spray toxic insecticides. But BT cotton is not yet been deregulated in India. The Department of Biotechnology in India has tried to get the technology to farmers, but when the department conducted field trials with BT cotton, non-governmental organizations filed a lawsuit. These activists also waged a media campaign against Monsanto, which had developed the cotton. Activists actually went to the farms where field trials were underway, uprooted the genetically modified cotton, and burned it in front of TV cameras.

These actions have discouraged regulatory officials in India from releasing BT cotton to farmers. So it's still not legal in India to grow genetically modified crops. These kinds of restrictions go well beyond what we've seen in Europe and Japan. In Europe and Japan, farmers are at least permitted to use genetically modified crops; they choose not to because of consumer resistance. In many developing countries, partly because of protests and media campaigns by European-based non-governmental organizations, governments haven't even given farmers the choice of growing genetically modified crops.

The Chinese Example

Environmental non-government organizations like Greenpeace have played a significant role in discouraging developing countries from planting genetically modified crops. The following case illustrates that point.

In China, the government has deregulated some genetically modified crops such as cotton, which has been planted in significant quantities. Since 1997, farmers in China have

Montana's "Food-Insecurity" Increases While Nation Declines

Montanans are not keeping up with the rest of the nation in having enough to eat when they need it, according to a Bureau poll.

Twelve percent of Montana households were "food-insecure" at some point during the year 2000, about the same or a slight increase from the two prior years. However, in American households overall, food insecurity declined by 12 percent from 1995 to 1999.

Last year, Bureau researchers surveyed 406 Montanans by telephone about hunger and their food security, and asked questions about genetically modified foods.

The poll found that during 2000, 4.2 percent of Montana households had such food troubles that one or more household members were hungry. American Indian households were more likely than white households to be food insecure — while 10.9 percent of white households met the definition within the past year, 27.6 percent of American Indian households did.

Food insecurity was measured based on six questions developed by the U.S. Department of Agriculture to determine a household's level of hunger or danger of hunger.

The poll also found that households with children are more likely than households with no children to be food-insecure — 18.6 percent with children were food-insecure in the past year, versus 8.4 percent of households with no children. Nearly twice as many female respondents as male lived in food-insecure households.

In the area of genetic engineering of foods, Montanans disagree with their peers around the nation. Of Montanans polled, 44.4 percent believe that the benefits derived from genetically modified foods outweigh the risks, while 26.2 percent believe the risks outweigh the benefits. Nationally, 48 percent believe the risks outweigh the benefits, while 38 percent believe the opposite.

The poll also compared Montanans with Japanese and found that while 71 percent of Japanese are somewhat or very reluctant to eat genetically modified foods, just 50.9 percent of Montanans express a similar reluctance.

In a rare break from his farm chores, a Chinese farmer obliges a tourist's request for a photograph. PHOTO BY KURT WILSON.

been doing what farmers in India would like to do. They're using BT cotton to control the bull worm infestations that have devastated cotton production in China. They've been using Monsanto's BT variety, as well as two varieties they developed themselves in Chinese laboratories to control bull worms effectively without insecticide sprays.

One reason the government of China has been able to give this technology to its farmers is the inability of foreign-based environmental non-governmental organizations (NGOs) to work against the technology from inside the political system of China. International NGOs have blocked this technology elsewhere by working with opposition parties in the parliament. (China has no opposition parties.) They have also waged media campaigns (China has no free press), initiated lawsuits (China has no independent judiciary), and simply passed out literature (Greenpeace is not permitted to open an office in Beijing). So all of the techniques that have been used to slow the spread of this technology in other developing countries have not been available to the international NGOs in China, and that's one reason China has moved ahead.

A second channel through which European and Japanese attitudes are being exported into the developing world is through international commodity markets. One reason India is holding back on planting GM cotton is that Indian officials have noticed that European importers have decided not to import cottonseed cake from South Africa. (Europe imports cottonseed cake as an animal feed). Thailand and Brazil have also been told that if they start planting GM crops they will risk losing access to markets in Europe, Australia, or elsewhere. As a result, countries may feel it's better to remain GM-free so they can present themselves to wealthy importers in Europe and East Asia as credible sources of GM-free commodities.

Because of this combination of international NGO activism and international market signals mostly from Europe and Japan, a number of developing countries that might be making good use of GM-crop technologies are simply not doing so. As long as this is the case, the possible contribution genetically modified crops could make to solve hunger problems will never be known, except maybe in China. And even in China, there's a chance that the GM crop revolution will stall. China has planted GM cotton, but it has been slow to plant BT corn, partly because of international commodity markets. China has occasionally exported corn to Korea. And Korea, much like Japan, has become skittish about introducing GM crops into their food supply. China's not sure it wants to start planting BT corn if it would jeopardize exports to Korea in the years ahead.

The Future of Genetic Modification

Some interesting lessons about globalization emerge from this discussion of genetically modified crops. We sometimes hear that globalization is inevitable, that it's winning everywhere. We sometimes hear that globalization is the same thing as westernization. And, we sometimes hear that it's the same thing as Americanization. But in the case of gm crops, it would seem that Americanization isn't winning at all.

We have a powerful new technology that was developed mostly by U.S. scientists, inside U.S. universities and U.S. corporations. It has been promoted worldwide by U.S.-based multinational firms that have bought seed companies all over the world hoping to be able to sell GM crops. Monsanto, Pioneer, Dupont.... You'd think that whatever they want, they get, especially when they have the support of the U.S. government. It's been a full-court press to get this technology out to the rest of the world. And yet, it hasn't spread significantly beyond the United States, Canada, and Argentina, except a little bit now in China. How do I explain this outcome?

I would tentatively conclude that, yes, globalization may be the same thing as westernization because it is the western industrial countries that have set the terms of the GM crop debate so far. And it's the developing countries as usual that are on the receiving end of this debate, trying to pick between an American and a European view of the technology.

Globalization in this case has two faces: a European face and an American face and they're making the opposite argument about GM crops. If I were from a developing country, I wouldn't be entirely happy with this situation. I wouldn't want my food security policies to be made either by Monsanto or by Greenpeace. The message I would take away from this case is that developing countries will have to work hard to avoid simply importing an industry-driven U.S. attitude or a consumer-driven European attitude toward this new technology. Neither the American nor the European attitude takes the urgent and distinctive food security and development needs of poor countries adequately into account.❑

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September 11, 2001

What Happens Now?

by Paul E. Polzin

Editor's note: The impact of the World Trade Center attack is on everyone's mind. Bureau Director Paul Polzin has summarized some of the impacts on the United States and Montana and is making presentations around the state. Here are some of his PowerPoint slides.

World Trade Center Attack: A Major U.S. Disaster

Event	Property Loss	GDP Loss	Total Loss
WTC Attack	$20 billion	$40 billion	$60 billion
L.A. Quake January, 1994	$16 billion	$9 billion	$25 billion
Hurricane Andrew August 1992	$17 billion	$8 billion	$25 billion
Midwest Floods June 1993	$5 billion	$7 billion	$12 billion

Source: www.economy.com

NOTES

The World Trade Center attack was not just a national tragedy. Using only the crude data available, the 9/11 attack dwarfs other recent national disasters.

How will the World Trade Center Attack Impact the Economy?

- Reduce consumer confidence (and spending)
- Reduce business confidence, leading to delays in orders and expenditures
- Industry impacts
  - Transportation (airlines and Boeing)
  - Hotels, rental cars, restaurants
  - Insurance and financial services companies
  - Residential and commercial construction (delays)
  - Border delays

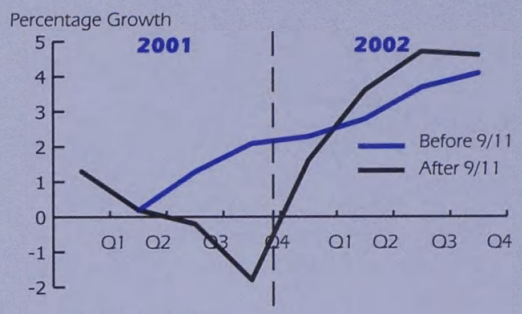
We learned that "confidence" was not just economic jargon. It meant that the United States nearly shut down. Consumers did not buy, businesses did not order, and nobody traveled.

What will the Impacts be?

- Greatest impacts in 2001 Quarter 3 and 2001 Quarter 4
- GDP growth reduced by 0.5 percent to 2.0 percent during 2001 Quarter 3 and 2001 Quarter 4
- Annual GDP growth for 2001 decreased by 0.4 percent to 0.8 percent
- U.S. was already near a recession

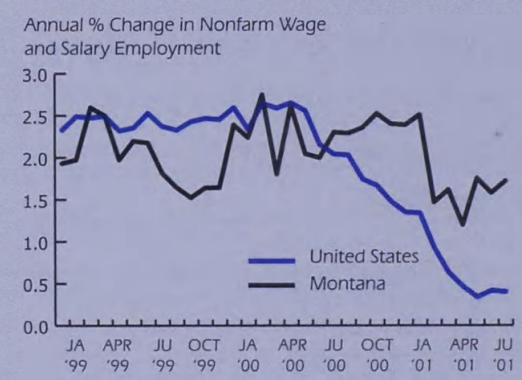
The current national forecast is that 2001 GDP growth will be reduced by 0.5 percent. This half of one percentage point wouldn't be so crucial if the U.S. economy weren't slowing and near a recession.

GDP Growth Rate Forecast by DRI-WEFA



Source: DRI-WEFA Inc.

Montana Decelerated in 2001



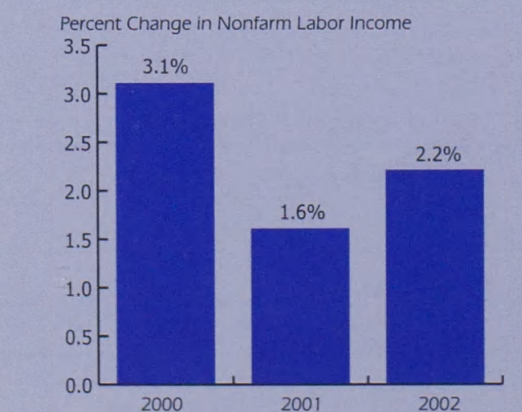
Source: Montana Department of Labor and Industry.

What is the WTC Impact on Montana?

Montana has Average Exposure

- Nonresident travel
- Construction
- Manufacturing (wood products)

Revised Montana Forecast



NOTES

The U.S. economy was projected to accelerate in late 2001 because of stimulative money policies (lower interest rates) and fiscal policies (Bush tax cuts). The World Trade Center attack will lead to a GDP decline in 2001 Quarter 3 and 2001 Quarter 4, but these stimulative policies will kick in and lead to recovery in 2002.

Prior to the 9/11 attack, both the U.S and Montana economies were slowing. The national slowdown was concentrated in transportation, equipment (automobiles) and high tech. Montana was decelerating due to the impact of higher electricity prices, not to the U.S. business cycle.

Even though Montana "dodged the bullet" with respect to the U.S. business cycle, it will feel the impact of the World Trade Center attack. Nonresident travel, one of the hardest hit U.S. industries, is one of Montana's important basic industries. There are also risks to other basic industries such as wood products.

The data for 2000 were revised upward. 2001 will still see slower growth, with some recovery in 2002. The economy is expected to grow1.6 percent in 2001 and 2.2 percent in 2002.

Paul E. Polzin is director at The University of Montana-Missoula Bureau of Business and Economic Research.

The University of Montana
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27TH ANNUAL MONTANA ECONOMIC OUTLOOK SEMINAR

INVESTING IN MONTANA

Program:

With the reverberations from the tragic events of September 11 still being felt across the nation and the U.S. economy plummeting, it can be difficult to focus attention on everyday problems as potholes in our streets, rising power bills in our mailboxes, and the quality of the workers in our job pools. Yet these problems all represent areas of our economy that determine our prospects for long-term economic growth.

Transportation, energy resources, and human capital form key elements of Montana's economic infrastructure and can greatly impact our economic future. It is only through investments in such areas of our economy that we can substantially increase our prospects for future growth. At the 27th Annual Economic Outlook seminar series we will explore the ways we can target opportunities for investment in our economy.

Shoring up the basic building blocks of our economy is more important that ever, given the faltering national economic picture. The after-effects of the recent national events and the impending U.S. recession will be addressed by Bureau director Paul Polzin in his national and state outlooks. Other speakers will offer insights on the implications for specific Montana industries.

In addition to this packed agenda, we will offer individual economic forecasts for each seminar city. And our special luncheon speaker will take a closer look at the energy situation in Montana. Steve Holland, director of the Montana Manufacturing Extension Center, will discuss the long-term impacts of this ever-important aspect of our economy.

Schedule:

8:00 – 8:15	Coffee and Registration
8:15 – 8:20	**Introductions,** First Interstate Bank
8:20 – 9:05	**Investing in Montana,** Steve Seninger, Paul Polzin, and Kevin McNew
9:05 – 9:15	Coffee Break
9:15 – 9:45	**National, State, and Local Outlooks,** Paul Polzin
9:45 – 10:00	**Local Perspective,** various local experts
10:00 – 10:20	**Nonresident Travel,** Norma Nickerson
10:20 – 10:30	Coffee Break
10:30 – 10:50	**Families, Kids and the Workforce,** Steve Seninger
10:50 – 11:10	**Agriculture,** Kevin McNew
11:10 – 11:30	**Manufacturing and Forest Products,** Charles Keegan
11:30 – 11:40	Coffee Break
11:40 – Noon	**Chamber of Commerce Report,** Local speaker
Noon – 12:50	**Energy in Montana,** Steve Holland
12:50	**Closing Remarks,** First Interstate Bank

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- ❑ Helena — January 29, 2002 — Cavanaughs Colonial Inn
- ❑ Great Falls — January 30, 2002 — Holiday Inn
- ❑ Missoula — February 1, 2002 — Holiday Inn Parkside
- ❑ Billings — February 5, 2002 — Radisson Northern Hotel
- ❑ Bozeman — February 6, 2002 — Comfort Inn
- ❑ Butte — February 7, 2002 — War Bonnet Inn
- ❑ Kalispell — February 12, 2002 — Kalispell Center Hotel
- ❑ Havre — March 12, 2002 — Duck Inn
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Fees:

❑ $70 registration includes seminar, proceedings, lunch, and a one-year subscription to the *Montana Business Quarterly*

❑ $20 processing fee for continuing education credits:
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- ❑ Montana Society of CPAs, 4 credits
- ❑ Montana Board of Real Estate Appraisers, 4 credits
- ❑ Institute of Certified Management Accountants, 4 credits
- ❑ Society of American Foresters, 4 credits
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